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(71) Applicant (for all designated States except US): IM-MUNOMEDICS, INC. [US/US]; 300 American Road, Morris Plains, NJ 07950 (US).			
(72) Inventors; and (75) Inventors/Applicants (for US only): LEUNG, Shui-on [GB/US]; 254 Kings Road, Madison, NJ 07940 (US). LOSMAN, Michele, J. [FR/US]; 475 Berkeley Avenue, South Orange, NJ 07079 (US). HANSEN, Hans [US/US]; 2617 North Burgee Drive, Mystic Island, NJ 08087 (US).			Published <i>With international search report. Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>

(54) Title: HUMANIZATION OF AN ANTI-CARCINOEMBRYONIC ANTIGEN ANTI-IDIOTYPE ANTIBODY AND USE AS A TUMOR VACCINE AND FOR TARGETING APPLICATIONS

## (57) Abstract

A humanized form of an anti-idiotype antibody to CEA, e.g., hWI2, has conserved immunoreactivity. The clinical benefits of anti-CEA antibodies are maximized by using the humanized anti-idiotype as a clearing agent for anti-CEA antibodies or antibody fragments. The humanized anti-idiotype also can be used as an immunogenic vaccine.